

**THE NEED FOR A WARRANTY ADMINISTRATOR
IN THE HOUSTON FIRE DEPARTMENT**

EXECUTIVE DEVELOPMENT

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ABSTRACT

This research analyzed the problem of the Houston Fire Department's absence of a position for warranty administration and the significant monetary losses suffered not having this position. The purpose of this project was to develop a job description for a warranty administration position in the Houston Fire Department. It is believed that this position can save significant funds for the Department.

This research project employed both historical and action research, (1) to ascertain how the literature defined the administration of warranties, (2) determine if other metro-size fire departments had a job description for a warranty administration position, (3) identify how private sector corporations handled the administration of warranties in their organization, and (4) determine which aspects of these questions should be used to develop a job description for a warranty administration position in the Houston Fire Department.

The procedures employed to conduct this research involved the combination of information gathered in the literature review and utilization of surveys. The "Warranty Administrators in Metro-Size Fire Organizations Survey" focused on how other departments managed the administration of warranties in their organization. The "Interview Questionnaire on Warranty Administration" targeted the private sector that sold products to the fire service.

The major finding of this research was that the fire service resolved warranty issues in a disjointed manner. The methodology of pursuing warranty claims involved personnel with other primary duties handling warranties on equipment periodically. This was not the case in the private sector. Warranty administration was organized and could

be replicated easily into the fire service. Good record keeping, documentation, and procedural controls provide the basis for warranty administration.

The recommendations resulting from this research included (1) a centralized warranty administration program focused in tracking and resolving warranty issues, (2) the incorporation of private sector practices to design a warranty program, (3) the development of a job description for a warranty administrator.

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INTRODUCTION

The Houston Fire Department purchases a wide array of tools, electronic equipment, and apparatus that typically have some type of warranty. Because these items have a tendency to break or not function as designed, someone in the organization must follow through and seek a repair or replacement on the item under warranty. If there is no person or group charged with this responsibility, a warranty repair or replacement may not be pursued with the vendor. Consequently additional expenditures are incurred due to ineffective warranty tracking. The problem, which prompted this research project, was that the Houston Fire Department does not have a position for warranty administration. The absence of this position creates significant monetary losses in the Department.

The purpose of this research project was to develop a job description for a warranty administration position in the Houston Fire Department. It is believed that this position can save significant funds for the Department. Although this may not be perceived as a critical topic to the survival of the fire service, management has a fiduciary duty to manage efficiently all funds in the organization's budget. If there are expenditures that should not have been made, then management has failed in its fiscal responsibility to the citizens of Houston. All costs must be scrutinized to fulfill this responsibility. The historical and action research methods were utilized to answer the following questions:

1. How does the literature define the administration of warranties?
2. Do other metro-size fire departments have a job description for a warranty administration position?
3. How do private sector corporations handle the administration of warranties in their organization?

4. Which aspects of these questions should be used to develop a job description for a warranty administration position in the Houston Fire Department?

BACKGROUND AND SIGNIFICANCE

The Houston Fire Department has a budget of \$205,000,000 in the 1998 fiscal year. 17.2 million dollars are used for equipment, electronic devices, tools, apparatus, and other miscellaneous items that have a warranty (City of Houston Budget, 1997). The Department does not have an administrator to track all the warranties provided by the various vendors, and thus numerous items slip through the bureaucracy. This is exactly what many vendors hope to occur with their warranty. Vendors not only escape having to repair or replace the item, but also often sell another piece of equipment to the Department.

The current haphazard approach in the Houston Fire Department of making claims on warranties is primarily related to a lack of documentation and coordination. In many instances records are not maintained of the actual warranty, in service date, requirements that must be followed to prevent nullification of the warranty, and procedures mandating a warranty review prior to repair or replacement. The Houston Fire Department must adopt the current practice in the private sector of focusing on anything that hinders profitability. A warranty is included in the price of the item and should be utilized to avoid additional costs to the organization. This lack of coordination and organization provides an environment for wasteful spending.

Many vendors expect their customers to forget or fail to keep the proper documentation to make claims on existing warranties. The Houston Fire Department is deficient in organizing the vast number of purchase orders, invoices, and warranties among purchases made each year. Currently, the Department's Motor Repair Division is being lambasted in the media for allegedly making repairs to fire apparatus under warranty and not recovering funds from the vendor. The media alleges that thousands of dollars have been spent due to poor management in this division. An investigation to determine if this failure to make claims on warranties was related to kickbacks or simply poor management is pending. This deficiency in management could have been avoided with a warranty administrator.

This research paper was prepared to satisfy the applied research requirement associated with the Executive Development course at the National Fire Academy. This research relates to the service quality unit of the Executive Development course by defining an area of operation that is non-existent and how it impacts the overall efficiency of the organization. The Houston Fire Department's lack of a warranty administration position is creating additional spending on items under warranty. Recent media attention is damaging the confidence of our citizens in the Department's management capabilities.

Excellence can never be given a back seat to mediocrity. If an organization fails to scrutinize all expenditures at a grass root level, then one must be concerned with cost allocations on a grander scale. Management can not manage their financial forest without due care for each tree in its overall make-up. Warranty administration could be considered one tree in the forest. This research provides a means for Houston Fire

Department management to improve service quality toward our customers by creating a warranty administration position and enhancing financial efficiency.

LITERATURE REVIEW

Introduction

The literature review for this project involved research in two distinct areas. First, literature was reviewed describing the various types of warranties and federal regulation mandating adequate information is provided to consumers concerning a warranty. Second, literature was reviewed outlining the methodology of warranty administration.

Types of Warranties

“In the law of sales, a warranty creates a duty on the part of the seller for breach of which the buyer may recover a judgment against the seller for damages” (Smith, Roberson, Mann, Roberts, 1982, pg. 449). A warranty is considered a contract between the seller and buyer.

Although the word “warranty” has different meanings as used in other branches of the law, under the law of sales warranties arise out of (1) the mere fact that the transaction is a sale of goods, such as a warranty of title; (2) affirmations of fact or promises by the seller to the buyer, which are express warranties; or (3) circumstances under which the sale is made, as in the case of implied warranties of merchantability and of fitness for the buyer’s particular purpose. Implied warranties are obligations of the seller which he has not assumed by express language (Smith, Roberson, Mann, Roberts, 1982, pg. 449).

“The warranty of merchantability is made by any merchant seller to any merchant or nonmerchant buyer. Thus it is not made only to consumers, but also to retailers and the like” (Evans, 1980, pg. 505). This creates a domino effect to the originator of the product. An example of this concept is the process of replacing a defective hydraulic pump on a ladder truck. The fire department makes a claim on the warranty provided by the fire apparatus vendor. The vendor authorizes a warranty repair invoice number and the fire department receives a new hydraulic pump. At this point, the fire apparatus vendor makes a warranty claim to the manufacturer of the hydraulic pump to recoup its expenses. Any break in this chain prior to the manufacturer of the pump causes a warranty to not be used and additional expenses incurred.

The law classifies warranties as “express” or “implied.” Express warranties are promises to back up the product expressed by the seller either orally or in writing. In contrast, a warrantor does not state implied warranties at all. They’re automatic, or implied by law. There are two main types of implied warranties: the implied warranty of merchantability and the implied warranty of fitness for a particular purpose (Coleman, 1997, pg. 85).

While the implied warranty of merchantability has been previously defined, the implied warranty of fitness for a particular purpose means that any seller is presumed to guarantee that an item will be fit for any particular purpose known and the seller knows that the buyer is relying on him to provide a suitable item (Coleman, 1997). An example of this concept is a fire department contacting a vendor to purchase a ladder truck that will be used for rescue and general fire fighting purposes. The vendor has a duty to supply an apparatus that will meet the fire department’s expectations. If the vendor,

knowing the fire department's expectations, chose to sell a ladder truck that could not be used for fire fighting, then the implied warranty of fitness for a particular purpose has been breached.

There are two basic types of written warranties: full and limited. Full warranties generally cover parts and labor for the duration of the warranty. Limited warranties, unlike full warranties, cover only the cost of repair and do not entitle the buyer to complete replacement of a defective product (Spaniola, 1987, pg. 92).

The majority of new-car warranties are limited warranties. However, many states have enacted lemon laws that require the manufacturer to honor the full warranty obligation of refund or replacement.

Subsets of these two basic types of written warranties include pass-through warranties, prorated warranties, extended warranties, on-site warranties, carry-in warranties, and pick-up warranties. An example of a pass-through warranty is when the original manufacturer of a component allows its warranty to "pass-through" the assembler manufacturer to the end user. A prorated warranty is provided on items that wear out prior to the end of the warranty period. A roof shingle that has a 25-year warranty period and needs replacement in 15 years will receive a prorated cash refund of the remaining 10 years under warranty. An extended warranty is purchased by consumers to extend the duration of the manufacturer's standard warranty (Peters, 1994).

The following type of warranties is usually associated with electronic equipment, such as computer hardware. An on-site warranty allows the customer to have the item repaired at the customer's location. A carry-in warranty stipulates that the customer take the item to an authorized service location for warranty repair. A pick-up warranty is when

the manufacturer arranges for pick-up, warranty repair, and return of the unit. This warranty typically includes packaging and shipping expenses (Compaq, 1997).

The federal government also plays a role in consumer protection by requiring manufacturers to make adequate information about the warranty available to customers and prevent deception. This protection is provided by the Magnuson-Moss Warranty Act that became effective in 1975 and is enforced by the Federal Trade Commission.

The Magnuson-Moss Warranty Act was enacted in order to alleviate certain reported warranty problems: (1) most warranties were not understandable; (2) most warranties disclaimed implied warranties; (3) most warranties were unfair; and (4) in some instances the warrantors did not live up to their warranties. The Act provides the following to alleviate the before mentioned problems: (1) disclosure in clear and understandable language; (2) a description of the warranty as either “full” or “limited”; (3) a prohibition against disclaiming implied warranties if a written warranty is given; and (4) an optional informal settlement mechanism (Smith, Roberson, Mann, Roberts, 1982, pg. 450).

Warranty Administration

Sources were sought that shed light on how warranties were administered. While procedures may vary in the details of a warranty administration program, the literature shows the overall methodology is quite consistent in its function. This reference data will exhibit the commonality of what is taking place in the private sector and allow it to be duplicated in the fire service with a great chance of success.

Ford, the second largest manufacturer of automobiles in the world, considers the proper administration of its warranty program not only key to its bottom line, but also critical to customer service.

Dealers should be cognizant of their obligations with respect to their warranty repair and service requirements as specified in Paragraph 4(b) of the Ford Sales and Service Agreement. A failure to perform those obligations could result in the replacement or repurchase by the Company of an owner's vehicle due to faulty vehicle quality or dealership service. If it is clear that such replacement or repurchase is caused by the actions of the dealership, the Company may elect to charge the dealer the related net cost incurred by the Company (Ford Motor Company, 1994).

The Ford Motor Company makes very clear to its dealers that failure to honor the warranty can result in punitive cost recovery from the dealership. Ford guides its dealers on how to properly implement the administration of a warranty program by setting out three (3) critical factors: time recording, warranty reporting, and controls. Time recording results in accurately detailing when a warranty is in effect and tracking labor costs associated with the repair. Warranty reporting outlines the forms and documents required for Company reimbursement for warranty repairs. This must be strictly followed to insure proper record keeping and validity. Controls are the procedures Ford utilizes to define the format and boundaries of the warranty administration program (Ford Motor Company, 1994).

One of the most important aspects of warranty administration is documentation. Copies of purchase order, invoices, warranties, and a documented preventative

maintenance program are the basic foundation of a warranty administration program. As William C. Peters states, “Going hand-in-hand with the preventative maintenance program is the proper documentation of services that were performed. If a costly engine failure occurs, the manufacturer most likely will require proof of proper maintenance before honoring the warranty” (Peters, 1994, pg. 357).

All manufacturers that offer warranties on their products utilize a procedure on how customers can make a claim. The customer is required to show this product was indeed manufactured by the manufacturer. Invoices or some type of receipt can provide this proof plus document the purchase date. Spartan Motors, a fire chassis manufacturer, has a standard protocol it requires customers to follow when making a warranty claim. The customer calls the customer service department and reports the problem. Spartan records the chassis vehicle identification number provided by the customer. This number provides a wealth of information to Spartan. Information provided includes the manufacture date, in service date, and repair history. Spartan will issue a work authorization number, and a designated repair facility will perform the repair based on an agreed parts and labor rate. The repairs will be detailed on an invoice and sent to Spartan for payment. This data will be entered into computer files for accounting and managerial needs within the company (Spartan, 1997).

A large part of a warranty administrator’s duties in a fire department will be following up on apparatus warranties. Unlike personal vehicles, the final “manufacturer” of fire apparatus acts more in the capacity of an assembler. Various components are brought to a facility and assembled into the final product. If warranty problems arise, there is potential for the fire apparatus manufacturer to pass blame to the originator of the

faulty component. It is very important to define in the specifications who is responsible for warranty repairs (Rosenhan, 1983).

Summary

The most notable outcomes of the literature review were the various types of warranties and the similarity of warranty administration programs. Understandings of the various types of warranties are critical to effective management of a successful warranty administration program. While this statement may seem quite evident, many administrators attempt to manage a program without establishing a basic professional knowledge of warranties and associated legal mandates.

The similarity of basic concepts in a comprehensive warranty administration program will allow this to be duplicated in the Houston Fire Department quite readily. Record keeping and procedural controls transfer easily in all types of occupational environments. The only requirement for success is a commitment of the organization's senior managers to ensure strict compliance with these concepts.

PROCEDURES

Research Methodology

The focus of this research was to develop a job description for a warranty administration position in the Houston Fire Department. The research methodology used was action and historical research. Information gathered through surveys of metro-size fire organizations and private sector corporations were applied to the problem of the Houston Fire Department not having a procedure to track warranties on products purchased by the organization. Historical research in the form of a literature review was

conducted to understand the relationship of various types of warranties and how they impact the duties of a warranty administrator. The first research question on how the literature defined the administration of warranties was answered in the process of the literature review. This research also included if other metro-size fire departments and private sector corporations actually had a position for warranty administration.

Introduction of Surveys

Two separate surveys were conducted to answer two of the research questions. The second research question is, do other metro-size fire departments have a job description for a warranty administration position. This was answered by surveys sent to other metro-size fire departments. The third research question is, how do private sector corporations handle the administration of warranties in their organization. This was answered by a combination of reference material sent to the author by corporations and telephone interviews answering questions on a survey questionnaire. Both surveys are detailed here.

A Study of Warranty Administrators in Metro-Size Fire Organizations

Population

Surveys were sent to all of the metro-size fire organizations listed in the Fire Engineering Directory of Municipal Fire Departments (Fire Engineering, 1996). This population was selected to acquire information from comparable size fire organizations that potentially would have a warranty administrator in the department.

Instrumentation

The goal for the “Study of Warranty Administrators in Metro-Size Fire Organizations Survey” was to answer research question #2.

Question #1 asked respondents if their organization had a warranty administrator position.

Question #2 asked if their organization does not have a formal position of warranty administrator, how are warranty issues monitored and/or handled.

Question #3 asked what items or equipment were tracked for warranty claims.

Question #4 asked what procedure was followed when determining if an item was covered by a warranty prior to repair.

Question #5 asked approximately how much money was saved each year in their organization making claims on warranties versus repairing items covered by an existing warranty.

The author reviewed the survey. A copy of the survey is displayed in Appendix A.

Assumptions and Limitations

It is assumed that the representatives from the various fire departments answered the survey correctly.

The survey provides a sampling representation of the metro-size fire departments in the United States. No statistical analysis was made to determine the margin of error in the survey results.

Tabulation of Surveys

The participants were allowed thirty days to complete the survey. Of the 112 questionnaires distributed, 61 were returned for review by the author. All returned survey questionnaires were tabulated.

Interview Questionnaire on Warranty Administration for Corporations

Population

A sampling of employees from large corporations were interviewed by telephone to determine if their organization had a warranty administration program. This also provided additional data to be included in the study. Typically, this was in the form of company procedures. Corporations were selected to participate in the survey that sell products to the fire service.

Instrumentation

The goal for the “Interview Questionnaire on Warranty Administration for Corporations” was to answer research question #3.

Question #1 asked respondents how their company processed warranty claims.

Question #2 asked respondents what documentation their company required ascertaining the validity of a claim.

Question #3 asked how many employees the organization utilized to process warranties.

Question #4 asked what were the critical elements in designing a warranty administration department.

Question #5 asked approximately how much money is saved each year when their organization makes claims on warranties from suppliers.

The author reviewed the questionnaire. A copy of the survey questionnaire is displayed in Appendix B.

Assumptions and Limitations

It is assumed that the respondents were knowledgeable and answered the questions honestly.

The survey provides a sampling representation of private sector corporations. No statistical analysis was made to determine the margin of error in the survey results.

Tabulations of Surveys

These survey questionnaires were done over a two-month period. Fifteen interviews were conducted during this period. Additional interviews were not sought due to the redundancy of information received amongst the various corporations. The corporations interviewed were the following:

Bell Helicopter
 Casco Industries
 Class 1
 Compaq Computer
 Emergency One
 Emergency Vehicles of Texas
 Ford Company
 Freightliner
 KME Fire Apparatus
 Kussmaul Electronics
 Pierce Manufacturing
 Quality Manufacturing
 Spartan Motors
 Stewart and Stevenson
 Super Vacuum Inc. Fire and Rescue Trucks

RESULTS

Answers to Research Questions

Research Question 1: How does the literature define the administration of warranties? The research conducted during the literature review detailed different types

of warranties and what legal rights the consumer can utilize for their implementation. This information was sought to give insight on what an administrator must understand about warranties to proficiently perform their duties. A warranty creates a duty on the part of the seller that has the effect of a contract between the seller and the purchaser (Smith, Roberson, Mann, Roberts, 1982).

Any merchant seller makes the warranty of merchantability to any merchant or nonmerchant buyer. This warranty allows protection for retailers as consumers (Evans, 1980). The fire service, a governmental entity, is not often perceived as a consumer that would be dealing with warranties beyond fire trucks. Warranties are extended to all parties involved in the marketplace.

The administration of warranties is done in a similar fashion across the economy. The company providing a warranty to consumers for its products is also being provided warranties on components from their suppliers. Corporations that function as buyer and/or seller necessitate warranty administration.

Individuals involved with warranty administration depend on documentation that is used to build a database tracking basic information such as purchase orders, invoices, warranties, and maintenance history. This documentation allows either party, seller or buyer, to follow defined protocols on handling a warranty claim. Research literature demonstrates how these protocols are quite similar. Typically, an authorization number is given to the buyer allowing repairs or replacement after the documentation proves this product to be under warranty. The buyer is directed to the seller's facility or an authorized dealer for this warranty work. If an authorized dealer is to perform the repair,

pre-arranged parts and labor costs will be charged to the originator of the product.

Warranty administrators coordinate this process in both venues as seller and/or buyer.

Research Question 2: Do other metro-size fire departments have a job description for a warranty administration position?

The author sent out 112 surveys to metro-size fire departments listed in the Fire Engineering Directory of Municipal Fire Departments (Fire Engineering, 1996). A total of 61 were returned. Information was sought to determine what other fire organizations in the Houston Fire Department's peer group were doing concerning warranty administration.

Survey question #1 of the metro-size fire organization study asked if your organization has a warranty administrator position. Responses were as follows:

Yes - **1** response

No - **60** responses

Survey question #2 asked if their organization did not have a formal position of warranty administrator, how were warranty issues monitored and/or handled. Responses were as follows:

Departmental section that purchased item - **21** responses

All warranties handled by purchasing/maintenance group - **19** responses

Warranties were monitored occasionally - **15** responses

Warranties were not monitored - **6** responses

Question #3 of the metro-size fire organization survey elicited information on what items or equipment were tracked for warranty claims. Responses were as follows:

Apparatus, computers, appliances, fire fighting equipment - **36** responses

Apparatus only - **10** responses

Items valued more than \$5,000 - **1** response

No items consistently tracked - **14** responses

Question #4 asked what procedure was followed to determine if an item was covered by a warranty prior to repair. Responses were as follows:

Purchasing file referenced - **36** responses

Based on recollection of repair personnel - **11** responses

No procedure in place - **14** responses

The final question on the survey asked approximately how much money was saved each year making claims on warranties versus repairing items covered by an existing warranty. Responses were as follows:

\$250,000 or more: **1** response

\$100,000 - \$249,999: **1** response

\$50,000 - \$99,999: **1** response

\$10,000 - \$49,999: **5** responses

\$1,000 - \$9,999: **1** response

\$0 - \$999: **2** responses

Unknown: **50** responses

Summary: Warranty Administrators in Metro-Size Fire Organizations Survey

The overwhelming majority of returned surveys indicate that fire departments are unlike the companies they purchase products from in that there is no warranty administrator in the organization. There is not a consistent focus on pursuing warranty claims. A purchasing/maintenance department or the users of the product are the typical

groups in the organization charged with resolving warranty issues. Six (6) departments do not monitor warranties.

High cost items such as apparatus, computers, appliances, and fire fighting equipment are the items tracked for warranty claims. Ten (10) departments only track warranty claims on apparatus. Again, private sector businesses contacted by the author track all items with a warranty. Many fire organizations have the mechanism in place for referencing if an item is covered by a warranty prior to repair by utilizing a purchasing file. The majority of fire organizations surveyed do not document how much money is saved when a warranty claim is made versus repairing items covered by an existing warranty.

Research Question #3: How do private sector corporations handle the administration of warranties in their organization? The author interviewed by telephone a representative in the warranty department of fifteen corporations that sell products to the fire service. The phone interviews asked the same questions to each company representative from a questionnaire developed by the author.

Interview Question #1 asked how the company processed warranty claims. Responses were as follows:

Customer file was reviewed for warranty information, and if approved, an authorization number was issued to have the repair done at an authorized facility. The amount of cost covered was dependent on the type of warranty involved. All fifteen companies followed this procedure.

Interview Question #2 asked what documentation the company required ascertaining the validity of a claim. Responses were as follows:

Invoice date - **15** responses

Serial number - **4** responses

Shop order number - **9** responses

Mileage on vehicles - **10** responses

Interview Question #3 asked how many employees does the company utilize to process warranties both for your customers and in turn the company as a customer to its suppliers. Responses were as follows:

100 or more: **1** response

50 - 99: **1** response

25 - 49: **0** response

10 - 24: **1** response

5 - 9: **1** response

1 - 4: **11** responses

Interview Question #4 asked what are the critical elements in designing a warranty administration department. Responses were as follows:

Good record keeping: **15** responses

Effective warranty controls: **15** responses

Centralized warranty administration: **15** responses

Time recording: **12** responses

Warranty reporting forms and documents: **15** responses

Effective software program: **14** responses

Good relationship with authorized service centers: **13** responses

Interview question #5 asked approximately how much money is saved each year when the organization makes claims on warranties from suppliers. Responses were as follows:

\$2 million or more: **9** responses

\$1 million - \$1.9 million: **2** responses

\$500,000 - \$999,999: **0** response

\$100,000 - \$499,999: **0** response

\$10,000 - \$99,999: **1** response

Unknown: **3** responses

Summary: Interview Questionnaire on Warranty Administration

The redundancy of information received from company representatives on how a warranty administration program is implemented is quite apparent from the responses. This consistency of guidelines from warranty administrators on what is entailed in developing such a program in various companies suggests easy assimilation into the fire service. In most instances, less than five employees work in the warranty department. Seven (7) multi-million dollar corporations have only one or two employees handling warranties. The tremendous dollar return on such few employees is demonstrated in the results of interview question #5.

Research Question #4: Which aspects of these questions should be used to develop a job description for a warranty administration position in the Houston Fire Department? After acquiring documentation in the three previous research questions, all aspects were included in the development of the job description in Appendix C. Aspects critical to developing a position for a warranty administrator in the Houston Fire

Department include a knowledge of warranties, customer relation skills, record keeping, documentation, and an understanding of the fire service.

DISCUSSION

Comparisons to Findings

The relationship between the study results and findings of others in the literature review were very similar when researching the private sector and disjointed in reviewing warranty administration practices in the fire service. The private sector is keenly aware that their products must perform to the expectations of their customers. Express and implied warranties provide the contractual basis on how goods must meet a minimum standard to avoid a negative legal ruling against the manufacturer filed by displeased customers (Coleman, 1997). The study showed that the company representatives interviewed were assigned to handle warranty issues as their sole function. It is also worth noting that in many instances the warranty section is actually in the company's customer service department.

Advocates for consumer protection rallied against unscrupulous manufacturers demanding that warranties be disclosed in clear and understandable language; a description of the warranty as either "full" or "limited"; a disclaimer against implied warranties would not be allowed; and the consumer be provided an optional settlement process to mitigate claims (Smith, Roberson, Mann, Roberts, 1982). These manufacturers view warranty administration as being just as important to their future as the research and development section of the company. If the product warranties are not being honored, then the research and development section is moot due to few customers willing to

purchase new products. The Ford Motor Company exemplifies this mindset to its dealers in its warranty policy program (Ford Motor Company, 1994).

The literature review on warranty administration is almost identical to that documented in the results. Documentation and good record keeping are the foundation of warranty administration. “If a costly engine failure occurs, the manufacturer most likely will require proof of proper maintenance before honoring the warranty” (Peters, 1994, pg. 357). Procedures followed to handle a warranty claim typically begin with the customer providing documentation to demonstrate that the product is under warranty. An invoice and some type of product identification number provide this information. The manufacturer will issue an authorization number for repair/replacement and direct the customer to an authorized service center. Replacement/repair costs to the customer depend on the type of warranty in effect. In an effort to enhance customer service, Spartan Motors provides the customer a step-by-step procedure on how to pursue warranty claims (Spartan, 1997).

The results from the “Warranty Administrators in Metro-Size Fire Organizations Survey” do not exemplify a focus on warranty administration when compared to the private sector. Only one department out of sixty-one responses actually employs a warranty administrator. When these departments make a warranty claim, it is assigned to the section using the item or routed to a purchasing/maintenance group. Unfortunately, these organizational areas have many other duties that push warranty administration to an after-thought as opposed to its primary focus. Twenty-one departments of the sixty-one responses do not monitor warranties at all or only occasionally.

The documentation and record keeping critical in warranty administration were not consistent in over one-third of the departments responding to the survey. This dooms any consistency in tracking warranties. Fifty of the sixty-one responses do not document cost savings realized by making claims on warranties versus repairing an item covered by an existing warranty. A few of the responses asked how a department realizes savings for something it was owed by the vendor. The savings is achieved by not spending tax-payer money on items that should have been paid by the vendor under the terms of the warranty. An analogy is how much property losses have fallen since instituting a new fire prevention program. Nine of the fifteen responses from the “Interview Questionnaire on Warranty Administration” save more than \$2 million dollars a year pursuing warranty claims against their suppliers. This cost effectiveness was typically achieved with one or two employees. Two of the companies (Ford and Compaq) with fifty or more employees involved in warranty administration are billion dollar corporations. This ratio is quite insignificant in the overall organization. Warranty administration does not require a large bureaucracy.

Interpretation and Evaluation of Study Results

The author is impressed on how simplistic and straightforward warranty administration is to manage. The literature review and results from the “Interview Questionnaire on Warranty Administration for Corporations” on how the private sector implements warranty administration plainly shows how easy a warranty administration program can be implemented. The fire service only has to commit to good record keeping and documentation of all its purchases along with developing a procedure to notify the warranty section before a repair or replacement is done. These measures will initialize an

effective program that will improve as personnel gain a greater understanding of warranties and relationships with vendors. This is nothing like developing a new product or attaining a paradigm shift in attitudes within the organization. It is a program that requires very few employees.

A centralized warranty administration department provides one entity within the organization responsible for the program. Documentation and record keeping to administer the program is available for one-stop shopping. The fragmented approach in the fire service has individuals seeking this information at various points in the bureaucracy. A centralized warranty group is focused on its mission and is not distracted with other priorities. This focus and accountability is vitally important to a successful warranty administration program.

Implications to the Organization

In order to implement a warranty administration program in the Houston Fire Department, there has to be commitment from the Command Staff. All sections within the organization have to keep the warranty administration department aware of all purchases and subsequent repairs that are being requested. The all too familiar adage of “the right hand not knowing what the left is doing” must stop to have an effective program. This is not an insurmountable task. All repairs in the Department must initially be audited by the warranty administrator to determine if a warranty claim is applicable.

Many companies use a specialized software program to increase efficiency in the warranty department. Software available on the market or having a Houston Fire Department programmer develop a program can make this resource easily available. The cost would be minimal.

Personnel costs to get this program off the ground would be approximately \$35,000 plus benefits a year. This compensation package would attract qualified candidates in the Houston area. Another approach would be to use a fire fighter with a long-term disability. However, it is important not to use fire fighters that are off a few months before returning to the fire station. The warranty administrator should not be a constantly rotating position to gain maximum effectiveness of the personnel performing these duties.

The implementation of a warranty administration program will diffuse the media controversy of the Department allegedly paying for repairs under warranty. This position will also improve the fiduciary obligation to our customers, the citizens of Houston. The Houston Fire Department purchases millions of dollars worth of equipment each year. This is always followed with the inevitable need for repair at some point on this equipment. It must be mandatory that each item be scrutinized before making a repair to determine if a warranty is available.

RECOMMENDATIONS

The Houston Fire Department manages warranty administration like the majority of metro-size fire organizations, poorly. This disjointed approach is akin to a runner hobbled with a torn ligament in the knee. While the runner may get to the finish line, he or she gets there in a very inefficient manner. The race for fiscal efficiency needs to include a centralized warranty administration program. The author acknowledges that this topic is not a primary focus on the radar screen of fire managers. This is evident by the

results of the “Warranty Administrators in Metro-Size Fire Organizations Survey”.

Again, how does a fire service manager administer the forest of fiscal responsibility without analyzing every tree making up the forest. Excellence is only achieved on a broad scale when the components of the organization are placed under a microscope.

The private sector is often a good group for governmental entities to emulate. A demand for maximum utilization of every dollar in the company is being achieved in the American marketplace. Why do all manufacturers in the “Interview Questionnaire on Warranty Administration” have a warranty administrator to resolve warranties for their customers and also to recover claims from their suppliers? The answer is simple. It is recognized as an effective business practice to take care of customers and keep production costs at an acceptable level. The Houston Fire Department should adopt warranty administration as outlined in the literature review and corporate survey.

The problem statement for this research project was as follows: The Houston Fire Department does not have a position for warranty administration. The absence of this position creates significant monetary losses in the Department. The purpose of this research project was as follows: Develop a job description for a warranty administration position in the Houston Fire Department. It is believed that this position can save significant funds for the Department. The study results demonstrate how warranty administration is crucial to effective management of the organization. A job description for a warranty administrator is located in Appendix C. This position can help the Houston Fire Department reduce repair costs and emulate excellence in the private sector. The tax-payers of the City of Houston should expect nothing less.

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APPENDIX A**A STUDY OF WARRANTY ADMINISTRATORS
IN METRO-SIZE FIRE ORGANIZATIONS**

Fire Department Address Label Attached Here

1. Does your organization have a warranty administrator position? If yes, please attach a copy of the job description to the questionnaire.

___ Yes

___ No

2. If your organization does not have a formal position of warranty administrator, how are warranty issues monitored and/or handled?

3. What items or equipment are tracked for warranty claims?

4. What is the procedure for determining if an item is covered by a warranty prior to repair?

5. Approximately how much money is saved each year in your organization making claims on warranties versus repairing items covered by an existing warranty?

Please return this survey questionnaire by May 31, 1997 to:

District Chief Chris Connealy

Houston Fire Department

1205 Dart

Houston, Texas 77007

APPENDIX B

INTERVIEW QUESTIONNAIRE ON WARRANTY ADMINISTRATION

COMPANY NAME: _____

1. How does your company process warranty claims?
2. What documentation does the company require ascertaining the validity of a claim?
3. How many employees does the organization utilize to process warranties both for your customers and in turn the company as a customer to its suppliers?
4. What are the critical elements in designing a warranty administration department?

5. Approximately how much money is saved each year when your organization makes claims on warranties from suppliers?

APPENDIX C**HOUSTON FIRE DEPARTMENT
JOB DESCRIPTION**

Position: **Warranty Administrator**

Reports To: Assistant Director: Finance and Administration

Responsibilities:

- Maintain files of all purchases in the Houston Fire Department. Original warranties and product identification numbers shall be kept with invoices.
- Interface with HFD personnel and vendors regarding warranty claim questions or appeals both verbally and in writing.
- Investigate difficult recoveries using both internal and external resources and document the results.
- Document warranty claim recoveries and forward information to appropriate department head or designee.
- Maintain database of all documentation required for warranty administration program.
- Provide periodic classes to employees involved with purchasing and maintenance concerning warranty issues.
- Develop a monthly report detailing all activities.